DOCUMENT RESUME

ED 449 475 CS 014 232

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TITLE	Literacy Collaborative[R] 2000 Research Report.
INSTITUTION	Ohio State Univ., Columbus.
PUB DATE	2000-00-00
NOTE	36p.; For the 1999 report, see CS 014 231. Published annually.
AVAILABLE FROM	Literacy Collaborative at The Ohio State University, 807 Kinnear Rd., Columbus, OH 43212.
PUB TYPE	Numerical/Quantitative Data (110) -- Reports - Research (143)
EDRS PRICE	MF01/PC02 Plus Postage.
DESCRIPTORS	*Beginning Reading; Elementary Education; *High Risk Students; *Instructional Effectiveness; *Literacy; Professional Development Schools; *Reading Achievement; *Reading Instruction

ABSTRACT

This report describes the Literacy Collaborative, which provides long-term professional development and support for teachers who are helping children learn effective literacy skills. The overall goal is to significantly raise the level of literacy achievement for children across the elementary years. The first two sections of the report describe the initiative and the research/evaluation design for all schools. The third section presents results of data collected for 38 schools involved in the project for at least four years. The fourth section describes the effects of implementation on specific schools through individual educators' reflections. The final section offers implications and suggestions for further research. (Contains 35 references, and 15 figures and 5 tables of data.) (EF)

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LITERACY COLLABORATIVE®

2000 Research Report

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Literacy Collaborative
2000 Research Report

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LITERACY COLLABORATIVE RESEARCH REPORT 2000

Executive Summary

The Literacy Collaborative provides long-term professional development and systemic support for teachers who are helping children learn effective literacy skills and use literacy as a tool for learning. The overall goal of the Literacy Collaborative is to significantly raise the level of literacy achievement for children across the elementary years. The key to implementation of the Literacy Collaborative is to enable one staff member in a school to complete an initial training consisting of seven weeks of intensive training at a university or district training site (scheduled periodically over the period of one year) and related assignments. After their training year, literacy coordinators then assume a staff development role, for which they are released at least half of the school day. They also continue to participate in ongoing professional development at the training site. Work in the primary grades (kindergarten, first grade, and second grade) has been ongoing since 1993 and currently involves over 500 schools; work in intermediate grades (third through sixth) began with teacher study groups and became a formal training program in 1999 involving over 30 schools by fall 2000 (see Figure 1).

The Literacy Collaborative research design institutes fall-fall data collection using reading and writing assessments including individual (Hearing and Recording Sounds in Words and Benchmark Text Reading) and group administrations (Gates-MacGinitie Reading Test, 3rd Ed., 1989). The goal of data collection in the first two years of the project is to establish a baseline for the purpose of historical comparisons. Data from these three assessments were analyzed for 38 schools that have been part of the Literacy Collaborative network for at least four years with the same literacy coordinator. Most Literacy Collaborative schools are located in mid-sized or large urban areas with diverse ethnic and economic populations.

The average aggregate NCE results on Total Reading (Gates-MacGinitie, 1989) for all second grade cohorts from fall 1995 to fall 1999 increased from 37.28 to 43.43 NCEs. The average NCE results for Total Reading analyzed by building revealed that 61% of the schools (23 out of 38) showed moderate to dramatic increasing trends across years for the second grade cohorts, with gains ranging from 1.32 to 34.9 NCEs; four of the schools showed no change in average NCEs across years, while 11 schools (29%) had a minimal declining trend with one school showing a loss of 12 NCEs. Implementation survey results from 76% of the schools revealed the following factors relative to increasing test scores: stable teaching staff, uninterrupted time for daily literacy instruction; support from primary teachers, building administrators and literacy teams; sufficient time for coaching individual teachers; and higher levels of implementation of the Literacy Collaborative framework.

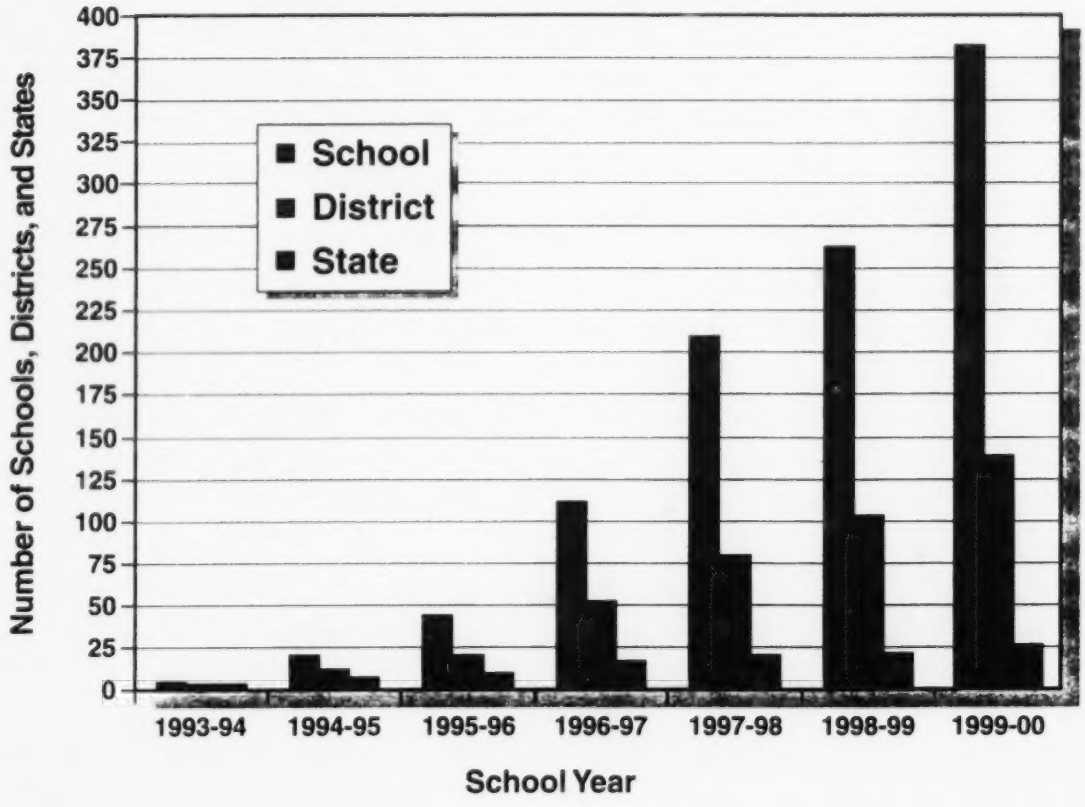
When we compared the average performance of students who were at the same school from kindergarten through second grade with the performance of students who were not in the same school during that time period, the average NCE performance was much higher for students who experienced the school's instructional program from kindergarten to second grade. Students in the same school who met the attendance criteria earned the highest scores. The average NCE performance for this group on both Reading Comprehension and Total Reading (48.86 NCEs Reading Comprehension; 47.34 NCEs Total Reading) approaches 50.0 NCEs, which is where students are expected to be for their grade level. Students who were not in the same school from kindergarten to second grade and who did not meet the attendance criteria performed lower (an average 31.70 NCEs for Reading Comprehension and 30.21 NCEs for Total Reading).

The distribution of student scores on the Gates-MacGinitie Reading Test across quartiles from lowest (#1) to highest (#4) was examined to identify any achievement patterns. It was found that in 24 of the 38 schools the percentage of students in the lowest quartile decreased while the percentage of children in at least two of the higher quartiles increased.

We compared the entry scores for Hearing and Recording Sounds in Words (HRSW) for over 2,400 kindergarten children beginning school in 1996, 1997, and 1998 with their achievement on the same test as first graders the following year. Kindergarten entry scores showed a downward trend (from 5.06 to 4.48 to 4.82) while first grade HRSW results rose from 17.48 to 18.15 to 19.56. We completed a similar analysis of Benchmark Books results by analyzing the patterns of the percentage of students who could read Book 1 with 90% or greater accuracy in the fall of their kindergarten year and those who could successfully read Book 2 the next year as first graders. The percentage of children successfully reading Book 2 as first graders rose consistently over time from 23.6% to 25.1% to 29.9% even though entry level percentages of children successfully reading Book 1 as kindergartners declined. A similar pattern of gains in achievement was found in data for two classes of students from kindergarten to second grade. As kindergartners in the fall of 1996, 12% of the students successfully read Book 1; 24% of the students read Book 2 as first graders; and 61% of the students successfully read Book 4 in the fall of second grade. The next year, fewer students entering kindergarten (fall 1997) successfully read Book 1 (10.6%). Yet, the number and percentage of students who could successfully read Book 4 as second graders rose to 64%.

Educators implementing the Literacy Collaborative framework in their schools have observed a general rise in scores on a standardized test and on other measures. This trend continued despite lower entry scores for the successive classes of kindergarten children. More research is needed to look in greater depth at the complex combination of factors leading to this trend. ■

Figure 1 - Growth of the Literacy Collaborative from 1993-94 to 1999-00



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There are five sections in this report. In the first two sections, a description of the initiative will be provided and the research/evaluation design for all Literacy Collaborative schools will be discussed. In the third section, results of data collected for 38 schools that have been involved in the Literacy Collaborative for at least four years will be presented. The fourth section will describe the effects of the implementation of the Literacy Collaborative on specific schools through reflections provided by literacy coordinators, building principals, and other educators. Three reports of systematic data collection at the school, district, and university levels are also included in this section. The final section offers implications and suggestions for further research.

Section I: Description of the Literacy Collaborative

The Literacy Collaborative is a broad-based cooperative effort designed to improve reading, writing, and language instruction in elementary schools. The Literacy Collaborative provides long-term professional development and systemic support for teachers as they take on new instructional approaches and expand their skills. The overall goal of the Literacy Collaborative is to significantly raise the level of literacy achievement for children across the elementary years. The program incorporates a design for creating systems to guarantee early success, and continuing progress for all students.

Literacy Learning and Teaching Component

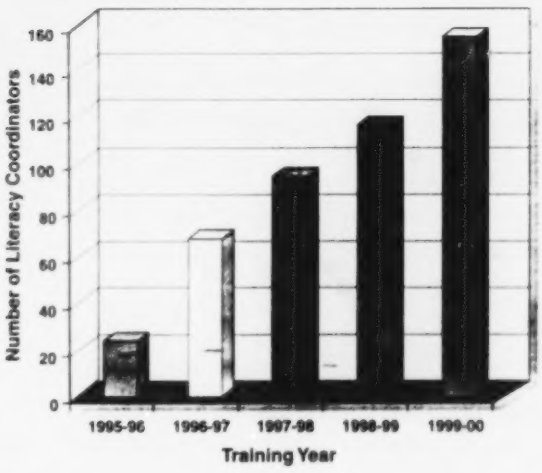
A Comprehensive Approach

The Literacy Collaborative utilizes a systemic approach that involves several interrelated factors:

- The curriculum is based on a comprehensive framework for literacy development that includes a wide range of reading and writing contexts.
- Professional development is available at the school site and includes a combination of class sessions, individual assistance, and coaching.
- Teachers new to the school (or to the framework) participate in intensive initial professional development taught by a literacy coordinator who is based in the school and also teaches students there on a regular basis.
- After the initial training, teachers participate in a variety of ongoing professional development opportunities, including regular meetings, coaching, study groups, action research, and others.
- There is a full-time literacy coordinator who provides the professional development courses as well as in-class assistance and who also teaches children daily.
- There is a book room in the school that houses a leveled collection of books organized into a gradient of difficulty.
- Classrooms have extensive libraries of books, including leveled books, beautifully illustrated children's literature, informational books, poetry, series books, and references.
- Safety nets are provided, including one-to-one tutoring (Reading Recovery) for first graders as well as other extra help at various grade levels.
- There is a parent outreach program that includes books for students to take home and read.

The list above comprises the definition of a Literacy Collaborative school. Longitudinal research indicates that consistent, intensive classroom instruction combined with safety nets like Reading Recovery results in higher achievement and fewer at-risk students (Rowe, 1995). In addition, educational improvement requires teamwork, a common vision, systemic change,

Figure 2 - Number of Literacy Coordinators Trained Each Year



and ongoing professional development (Fullan, 1985; Fullan & Miles, 1992; Wilson & Daviss, 1994). A large body of research has revealed that teacher training is the critical factor in making a difference in students' learning (Darling-Hammond, 1997). School capacity for staff development is increased by the preparation of a literacy coordinator who continues to teach children but also provides continuous training. Further, a school leadership team is established to guide the process. Work in the Literacy Collaborative is a long-term effort; the school staff makes a commitment to ongoing work over at least five years.

Research-Based Instruction

The work of the Literacy Collaborative is based on a large body of research on the reading and writing processes as well as how children become literate and use literacy as a tool for learning. In addition to this research base, each member school of the Literacy Collaborative network collects ongoing data to assess the impact of instruction. Work in the primary grades (kindergarten, first grade, and second grade) has been ongoing since 1993 and involves 381 schools (see Figures 1, 2, and 3) as of fall 1999; work in intermediate grades (third through sixth) began with teacher study groups and became a formal training program in 1999.

Instruction in Literacy Collaborative schools includes a combination of direct teaching as well as independent application of important principles in reading and writing, and is tailored to the learners. Instruction on topics already mastered is inefficient; instruction on concepts that are too difficult is ineffective. Teachers take the responsibility for identifying learners' strengths and needs through both systematic and informal assessment. Based on observation and assessment, teachers use a combination of whole group, small group, individual, and independent work as appropriate for the particular skills and strategies being taught. Overall goals of the instruction are to:

- Engage students in reading and writing for real purposes so that they understand the role of literacy in their lives.
- Teach basic principles so students become independent, strategic readers, writers, and spellers.
- Provide for students' development of a flexible range of comprehending strategies in reading and composing strategies in writing.
- Teach self-management so that students become readers and writers who can extend their learning.

Primary Level

Instruction for younger students involves a combination of reading and writing experiences that help them learn the purposes of literacy (Booth, 1999; Hundley & Powell, 1999; McCarrier & Patacca, 1994). The language and literacy framework includes a range of reading instruction (reading to children, shared reading, guided reading and independent reading); writing instruction (shared writing, interactive writing, independent writing, and guided writing); and word study (Fountas & Pinnell, 1996). Early emphasis is placed on acquiring knowledge of a core of known high frequency words while at the same time learning important principles about letter-sound relationships and how words "work." (Adams, 1990; Bradley & Bryant, 1983; Bryant, MacLean, Bradley, & Crossland, 1990; Ceprano, 1980; Ehri, 1991).

For young children, the alphabet is the tool of the reader and writer; all words in our system are based on this limited set of graphic signs. To identify letters, a basic foundational skill, the child must learn to notice the features with very small differences that distinguish one letter from another (Lyons, 1999). In the literacy curriculum, there is

Literacy Collaborative Sites across the United States

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Figure 3

a strong emphasis on learning to hear the sounds in words (phonemic awareness) as well as learning to look at letters and words and acquire critical concepts about how print works (Clay, 1991; Snow, Burns, & Griffin, 1998; Vellutino & Scanlon, 1987). Children learn letter-sound relationships in several different ways including structured minilessons, interactions with word walls and charts, as well as "hands on" work in ABC or word study centers (Chall, 1989; Henry, 1999). In each classroom, a systematic word study system is established to help students examine phonics and spelling principles. Children are taught to apply what they know while reading and writing.

Reading instruction assures that students comprehend written text (Pearson & Fielding, 1991) as well as learn to use phonics skills while reading for meaning (Pressley, 1998; Snow, Burns & Griffin, 1998). Instruction in writing assures that students learn to spell conventionally while writing to communicate (Henderson, 1990). Writing, in fact, contributes substantially to children's learning to read words (Ehri & Wilce, 1985).

Intermediate Level

Instruction in grades 3 through 6 continues to involve students in a wide range of reading and writing contexts (see Fountas & Pinnell, 2001). The three-block framework includes language and word study, reading workshop, and writing workshop. In reading workshop, the teacher provides a minilesson and students read independently and silently. During this time, the teacher confers with individuals, brings students together for small group instruction in guided reading, and meets with literature discussion groups. Writing workshop also includes minilessons, independent writing, and guided writing. There is a strong emphasis on content area reading and writing during sustained investigations or research projects. Students make strong connections between reading and writing and explore a range of text genre, including nonfiction, narrative, and poetry. Daily involvement in reading and writing continuous text is intensive.

A Strong Text Base

Literacy Collaborative schools invest in several kinds of books. These books provide a text base for students' reading, writing and word study.

1. There is a school collection of leveled books that are shared across grade levels, K to 6. In this "book room," teachers have the opportunity to talk with each other about the supports and demands texts make on readers. Benchmarks are established for every level on the gradient of difficulty, so that systematic assessment is built into the process and teachers can follow students' progress over years as they expand their strategies to deal with more complex texts.
2. In addition to a good school library, there are good book collections in each classroom. Classroom collections include a range of leveled books, excellent children's literature (for students to read and for teachers to read aloud), and informational books to support their research. Collections include a wide variety of genres.
3. The school supports home reading. In all grades students take home and return the books that they read in guided and independent reading. Children in kindergarten, first grade, and second grade have KEEP BOOKS® as part of the family outreach program. Because these little books are so inexpensive, children can take them home and keep them. KEEP BOOKS are brief paperback books with colorful covers and interesting stories. They are designed to support the development of early reading strategies. A structured program of instruction teaches children to collect, care for, and use the books for home reading. There are over 150 titles, including a sequential phonics set and 16 titles in Spanish. Several sets, designed specifically for preschool and kindergarten have traditional nursery rhymes. Intermediate grade students participate in book clubs and many schools also use magazines such as *Time for Kids* and *Scholastic News*, which are available beginning at Grade 1.

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Professional Development

There are two levels of professional development support within the Literacy Collaborative.

Literacy Coordinators

The key to implementation of the Literacy Collaborative is to enable one staff member in a school to complete a yearlong initial training, which consists of:

1. Seven weeks of intensive training at a university or district training site (scheduled over the period of one year).
2. Implementing and reflecting on all aspects of the literacy framework as they work with students daily in a classroom.
3. Participating in regularly scheduled study groups.
4. Videotaping and analyzing their own teaching.
5. Gathering observational data on children and completing case studies.

After their training year, literacy coordinators then assume a staff development role, for which they are released at least half of the school day. They also continue to participate in ongoing professional development through the university.

At present, training sites prepare literacy coordinators for both primary levels and intermediate levels; each is a separate training program. Schools may elect to work at either primary or intermediate levels, or both. Currently, each level requires one full-time staff member since both primary and intermediate teachers value an individual who focuses on and is an expert in working with the appropriate age level.

Teachers

Teachers in the school agree to:

1. Implement the language and literacy framework in their classrooms.
2. Collect assessment data on students' progress.
3. Participate in an initial course that involves 40 hours of class sessions, usually held outside the school day and scheduled across the year.
4. Continue to participate in ongoing professional development and other study opportunities after initial training.
5. Allow the literacy coordinator to provide in-class coaching and engage in conversations about their teaching.
6. Videotape and analyze their own teaching as they become more advanced in their knowledge.

Reflection is a key assessment tool that strengthens the instructional process. Through coaching and conversations with their colleagues, teachers continually reflect on the effectiveness of their teaching (Joyce & Showers, 1980, 1982).

Ongoing Development of the Literacy Collaborative

Work with the primary level Literacy Collaborative began in 1986, with a series of teacher study groups; formal training of literacy coordinators began in 1993. Work on the intermediate framework also began with teacher study groups at OSU and Lesley University in 1995. Training of intermediate literacy coordinators was established at Lesley University beginning in 1999. A two-year training program has been designed to prepare university and district-level personnel to offer literacy coordinator training locally. At the beginning of the 1999-00 school year, the Literacy Collaborative network included 381 schools representing 138 districts in 26 states (see Figures 1, 2, and 3). The network is designed to continually update the work of school-based staff developers. ■

Trainers work with literacy coordinators during site visits to support their understanding of the Literacy Collaborative framework.

A Language/Literacy Framework for Elementary Schools*

An organized framework guides the combination of specific, research-based instructional approaches. The framework is based on principles of active learning, specific teaching, and independent applications of important principles.

In this table, we summarize the framework as it is implemented across grades K – 6. There are many parallels. As students gain knowledge and strength as language users, activities and emphases are gradually shifted along this continuum.

Grades K, 1, 2	Grades 3, 4, 5, 6
Children in primary grades are involved in a range of interrelated activities for learning about oral and written language, with emphasis on enjoyment, language play, and foundational concepts such as letters, sounds, and words. In many ways, they explore the relationships between oral and written language. The framework is implemented within an integrated 2 to 3 hour block of time.	In the intermediate grades, the framework expands to emphasize content area reading and writing, sustained investigations or research projects, and reading and writing a greater range of text genre including nonfiction, narratives, and poetry. The framework is organized as three distinct blocks of time, which may be implemented in one 2 - 3 hour period or at 3 different periods in the day.
Block One: Language/Word Study *Interactive Read Aloud*—Hearing written language read aloud on a daily basis. *Shared Reading*—Engaging in shared reading of enlarged texts to develop knowledge of early reading behaviors, high frequency words, and letter-sound relationships. *Shared and Interactive Writing*—Participating in shared writing, interactive writing, and group instruction to learn how written language works as well as experience the writing process. *Word Study Minilessons*—Participating in systematic study of letters, sounds, and words as part of each day's work. *Content Area Connections*—Through discussion, reading aloud, and short lessons, students make connections to science, social studies, and other content areas.	**Block One: Language/Word Study** *Group Planning*— Engaging in group planning for content area study and other projects. *Language/Word Study*—Interactive Read Aloud, Modeled Reading and Writing, Interactive Vocabulary, Interactive Edit, Word Study and Test-Taking Minilessons, Buddy Study System, and Handwriting. Demonstration and explicit teaching help students learn important language and word study skills. They participate in a systematic word study program to develop spelling ability and word solving skills as well as in structured learning activities such as editing and handwriting. Through hearing texts read, they learn about new genres and how they are organized. *Oral, Visual, Technological Communication*—Participation in a variety of visual and performing arts, including readers' theater, shared reading and writing of poetry and prose, choral reading, public speaking, and discussion.
Block Two: Reading and Independent Work *Guided Reading*—Reading teacher-selected leveled texts in guided reading (small group instruction within which teachers provide specific instruction on effective reading strategies). *Independent Language and Literacy Work*—Independent reading to apply principles; active, systematic study of spelling principles; independent writing; listening; and projects related to content areas. *Group Share*—Reflection on quality of independent work.	**Block Two: A Reading Workshop** *Independent Reading*—Book talks to engage interest, minilessons on reading self-selected texts independently and silently and reflecting on their own reading. *Guided Reading*—Participation in guided reading (small group instruction within which teachers provide specific instruction on comprehending strategies). *Literature Study*—Participation in the analysis of literary works through reading, discussing, and extending literary texts.
Block Three: A Writing Workshop *Minilesson*—Demonstration of principles related to conventions or craft of writing. *Writing and Conferring*—Writing independently to apply principles, with demonstration and individual, and sometimes small group, guidance from the teacher. *Sharing*—Discussion and feedback on application of principles to individual writing.	**Block Three: A Writing Workshop** *Independent Writing*—Minilesson on writing craft or conventions followed by independent, silent writing, with emphasis on finding voice, gaining sense of audience, and writing in a variety of genres. *Guided Writing*—Small group writing instruction specifically designed to help students improve writing skills and strategies. *Investigation*—Individual or small group participation in research that includes gathering and organizing information as well as writing and using a range of tools for presentation.

* *Idapted from Fountas, I.C. and Pinnell, G.S. 1996.* Guided Reading: Good First Teaching for All Children *and Fountas, I.C. and Pinnell, G.S. 2001.* Guiding Readers and Writers, Grades 3-6: Teaching Comprehension, Genre, and Content Literacy. *Portsmouth, NH: Heinemann.*

Section II: Research/ Evaluation Design for Literacy Collaborative

A major goal of the Literacy Collaborative primary project is to raise the level of literacy achievement of kindergarten, first grade, and second grade students. In conjunction with the intermediate project, a data collection system has been designed for assessing progress of children throughout the elementary grades. Schools that select to implement Literacy Collaborative at intermediate levels will phase in the data collection system through grade five or six, depending on the structure of the school.

The Literacy Collaborative research design institutes fall-fall data collection using a variety of reading and writing assessments, including both individual and group administrations. The purposes for collecting data on each child in Literacy Collaborative schools are to:

1. Inform classroom instruction by providing systematically collected information on each child's strengths and knowledge base;
2. Provide information enabling teachers to analyze the growth of individual students over time;
3. Provide a basis for a school staff to analyze improvements of the project over time; and,
4. Inform research and development of the Literacy Collaborative.

Results are provided to Literacy Collaborative schools each year, which enable school officials to evaluate curricula and teaching methodology by examining trends over time.

The goal of data collection in the first year of the project is to establish a baseline for the purpose of historical comparisons. The literacy coordinators are the only teachers implementing the framework during their training year; so, in effect, school wide change has not yet begun. Children in the school participate in the existing instructional program. During the next year, classroom teachers gradually phase in the new approaches. Thus, fall testing in the first two years of the project forms a baseline for subsequent years.

A cohort consists of a "grade level" group of children. Teachers in the Literacy Collaborative look at each cohort of children and their achievement scores. Recognizing that the cohorts are made up of different groups of children, their goal is to look for trends over time, asking, "Are we achieving higher scores, over time, as each new cohort of children experiences our educational program?" Each year the literacy coordinator and school planning team prepare a report that describes the school program, goals accomplished during the year, and student outcomes. The Literacy Collaborative requires that the reading and writing data be collected from every student in kindergarten, grade one, and grade two. Many schools collect additional data to inform their instruction and program design. Examples include: (1) schools involved in development of the Literacy Collaborative in the intermediate grades that collect additional data, (2) schools that have collected fall to spring data on some measures, and (3) schools that collect data to look at the instruction of special groups such as ESL students.

Bilingual Students within the Literacy Collaborative Training Centers/Sites

Presently, literacy coordinators support bilingual teachers at 52 sites in six states. These teachers deliver the Literacy Collaborative instructional framework in Spanish. To assess student progress in kindergarten, first, and second grade, Spanish-speaking students are administered Spanish versions of the Literacy Collaborative fall assessments. Aprenda 2[2] (Harcourt Brace Educational Measurement, 1997), a standardized reading test for Spanish students, is administered in the fall to second grade Spanish-speaking students.

Instrumentation

Five measures used to evaluate the Literacy Collaborative are described below:

- Hearing and Recording Sounds in Words (HRSW). This task is a measure of the child's knowledge of relationships between letters and sounds in words. The assessor reads a sentence to the child and then reads it again slowly, asking the child to try to write the words. Products are scored as to the number of phonemes accurately represented through sound analysis. Two dictation assessments

[2] *Data from* Aprenda 2 *are not included in this report but will be reported separately when enough bilingual schools have participated in the project for four years.*

exist: (1) five forms of sentences to be used in kindergarten and grade 1 (Maximum score = 37) (Clay, 1993); and (2) three forms of sentences for grade 2 children (Maximum score = 64) (DeFord, Pinnell, Lyons, & Place, 1990). The sentence for grade 2 children is scored for both phoneme representation and accurate spelling, yielding two scores.

- Benchmark Text Reading Assessment. Benchmark texts were constructed to determine students' ability to read, with 90 percent accuracy or better, text(s) at their appropriate grade levels. Benchmark testing is recommended by the New Standards Primary Literacy Committee (New Standards Primary Literacy Committee, Center for Education and the Economy, 1999).
- Fluency. A 4-point Likert-type scale to record ratings is used by the teacher to assess each child's ability to read with fluency and phrasing. Fluency and phrasing are characteristics related to comprehension (Fountas & Pinnell, 1996; Pinnell, Pikulski, Wixson, Campbell, Gough, & Beatty, 1995).
- Gates-MacGinitie Reading Test (3rd Ed., 1989). The Gates-MacGinitie Reading Test (Level 1, Form K) was administered to all grade 2 students in each building. This test series has empirical norms for fall and spring, established in the fall of 1987 and spring of 1988 (MacGinitie & MacGinitie, 1989).
- Kindergarten Write Name Assessment[1]. A 5-point Likert-type scale to record ratings is used by the kindergarten classroom teacher to assess each child's control of print knowledge when writing his/her name.

Table 1 - Pearson Correlations Between Student HRSIW, Spelling, Fluency, and Gates-MacGinitie Reading Test Performance for Students in Kindergarten in 1997-98, First Grade in 1998-99, and Second Grade in 1999-00

	Fall 1997 Kindergarten HRSIW	Fall 1998 First Grade HRSIW	Fall 1998 First Grade Book 2 Fluency	Fall 1999 Grade 2 HSIW Phonemic Awareness	Fall 1999 Grade 2 HSIW Spelling	Spring 2000 Grade 2 Book 5 Fluency	Gates Fall 1999 NCE on Vocabulary	Gates Fall 1999 NCE on Reading Comp.	Gates Fall 1999 NCE on Total Reading
Fall 1997 Kindergarten HRSIW	----	.556** (N=1778)	.472** (N=1225)	.366** (N=1387)	.460** (N=1385)	.362** (N=1334)	.469** (N=1374)	.471** (N=1373)	.495** (N=1373)
Fall 1998 First Grade HRSIW		----	.583** (N=1772)	.525** (N=1829)	.595** (N=1827)	.454** (N=1735)	.601** (N=1806)	.592** (N=1805)	.620** (N=1805)
Fall 1998 First Grade Book 2 Fluency			----	.349** (N=1304)	.461** (N=1302)	.339** (N=1256)	.493** (N=1300)	.464** (N=1300)	.509** (N=1300)
Fall 1999 Grade 2 HSIW Phonemic Awareness				----	.764** (N=2495)	.569** (N=2305)	.969** (N=2442)	.647** (N=2441)	.696** (N=2441)
Fall 1999 Grade 2 HSIW Spelling					----	.568** (N=2304)	.757** (N=2440)	.691** (N=2439)	.754** (N=2439)
Spring 2000 Grade 2 Book 5 Fluency						----	.679** (N=2277)	.691** (N=2276)	.708** (N=2276)
Gates Fall 1999 NCE on Vocabulary							----	.835** (N=2473)	.951** (N=2473)
Gates Fall 1999 NCE on Reading Comp.								----	.947** (N=2473)
Gates Fall 1999 NCE on Total Reading									----

[1] *The Kindergarten Write Name Assessment is not included in this report.*

***Correlation is significant at the 0.01 level (2-tailed).*

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Validity

To verify the validity of the kindergarten, first grade, and second grade assessment measures, the kindergarten, first grade, and second grade HRSW (second grade scored for both phoneme representation and spelling) and fluency assessment[4] measures were correlated with students' scores on the Gates-MacGinitie Reading Test Subscales: Vocabulary, Reading Comprehension, and Total Reading. Results were similar to the 1998 and 1999 findings (Williams, 1998; 1999); all correlations were significant at the 0.01 level (2-tailed) (see Table 1). Thus it can be stated that the kindergarten, first grade, and second grade HRSW, spelling, and fluency assessments validly measure a child's ability to recognize and understand/comprehend what he/she has read, ranging from single words to passages. ■

Section III: Results from 38 Schools, Fall 1995-Fall 1999

Yearly data collection not only provides important information for individual Literacy Collaborative schools, but also creates a database for analyzing trends across schools over time. For purposes of this report, three research questions will be addressed:

1. What are the patterns of change in second graders' performance on the Gates-MacGinitie Reading Test for schools that have been in the Literacy Collaborative network for at least four years?
2. How does performance on Hearing and Recording Sounds in Words (HRSW) in kindergarten and grade one change over time in Literacy Collaborative schools that have been in the network for at least four years?
3. How does performance on Benchmark Books in kindergarten, grade one, and grade two change over time in Literacy Collaborative schools that have been in the network for at least four years?

School Sites

For this report, we examine the progress of 38 schools that were selected for these analyses based on the following criteria:

1. The school has been a Literacy Collaborative school at least four years making it possible to examine results over time.
2. The school's staff are members of the Literacy Collaborative network and working toward implementation.
3. The literacy coordinator has been at the school since the beginning of his/her training. He/she has not taken a leave of absence, transferred, or resigned during this time.

School Demographics

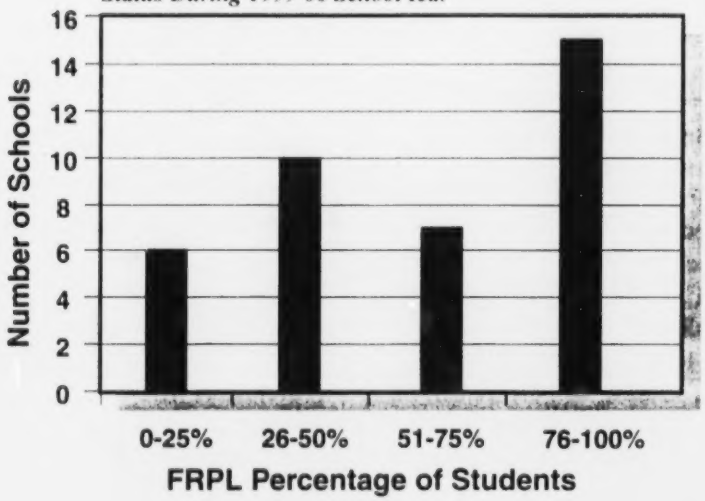
Thirty-eight schools met the above criteria. Two schools entered the project in 1994-95 by training literacy coordinators; four schools entered during the 1995-96 school year; and 32 schools entered the following year. Seventeen of the 38 schools are in the Midwest; 17 schools are in the Eastern United States; and four are in the Western United States. The largest number of schools (n=25) are located in mid-sized or large urban areas. Nine schools are on the fringes of urban areas and four others are in small town or rural settings.

Table 2 - Number of Schools Grouped According to Percentage of Students in Each Race/Ethnicity Category for Fall 1999

Race/Ethnicity	Percent of Students					
	Greater than 0% & Less than 5%	Greater than or Equal to 5% & Less than or Equal to 25%	Greater than 25% & Less than or Equal to 50%	Greater than 50% & Less than or Equal to 75%	Greater than 75% & Less than or Equal to 100%	Not Applicable
Caucasian	1	8	10	3	15	1
African-American	10	8	5	8	2	5
Asian	21	5	1	0	0	11
Hispanic	13	7	7	3	0	8
Native American	7	0	0	0	0	31
Other	24	7	0	0	0	7

[4] *Fluency assessment is not included in this report.*

Figure 4 - Number of Schools Grouped According to Percentage of Students on Free or Reduced Price Lunch Status During 1999-00 School Year



Schools in this report are representative of others in the Literacy Collaborative in that they include diverse ethnic and economic populations (see Table 2 and Figure 4). Eighteen of the 38 schools have populations with over 50% Caucasian students; ten schools have over 50% African-American students, and three schools have over 50% Hispanic students in the primary grades. Asian, Hispanic, and Native American children are found in many Literacy Collaborative schools but in smaller numbers. Figure 4 reveals that only 6 of the 38 schools in this study have 25% or fewer students with Free or Reduced Price Lunch (FRPL) status. In contrast, over 50% of the students are receiving either free or reduced price lunches in 22 of the 38 schools and 15 of those schools have at least 76% of their students with FRPL status.

Research Question #1:

What are the patterns of change in second graders' performance on the Gates-MacGinitie Reading Test for schools that have been in the Literacy Collaborative network for at least four years?

To address research question #1, we present five analyses. The first two analyses determined patterns of NCE performance on Total Reading for all second grade students in the 38 schools on the Gates-MacGinitie Reading Test. The third analysis of implementation data revealed patterns in both high progress and lower progress schools. The fourth analysis examined NCE gains for children who have remained in the same school from kindergarten to grade two with children who have not attended the same school from kindergarten to grade two. The fifth analysis revealed patterns of quartile shifts in achievement (from low to high).

Analyses #1 and #2: Patterns of NCE Performance on the Gates-MacGinitie Reading Test

Second grade students in Literacy Collaborative schools were administered the Gates-MacGinitie Reading Test every fall. Normal Curve Equivalent (NCE) scores were analyzed for each cohort over the years. An NCE is a statistical transformation of percentile ranks in which reading achievement is divided into 99 equal units with a mean of 50 and a standard deviation of 21.06. NCEs are generally considered to provide the truest indication of student growth in achievement since they provide comparative information in equal units of measurement. An NCE score of 50 is equal to the mean (average) score for the general population, which indicates where a student is expected to be for his/her grade level. Consequently, an NCE score of 60 is above the average. For a student's NCE score to remain the same at posttest as at pretest does not denote a lack of absolute progress. On the contrary, it means that the student has maintained the same relative position in terms of the general population. Even a small gain in NCEs indicates advancement from the student's original level of achievement.

Table 3 - Average NCE Total Reading Results on Gates-MacGinitie Reading Test for Second Grade Cohorts Fall 1995, 1996, 1997, 1998, & 1999

Gates-MacGinitie Reading Test Total Reading					
	Fall 95 NCE Total Reading	Fall 96 NCE Total Reading	Fall 97 NCE Total Reading	Fall 98 NCE Total Reading	Fall 99 NCE Total Reading
N	203	2546	2652	2506	2472
Mean	37.28	40.80	41.34	42.11	43.43
StdDev	23.42	23.83	23.39	22.23	22.33

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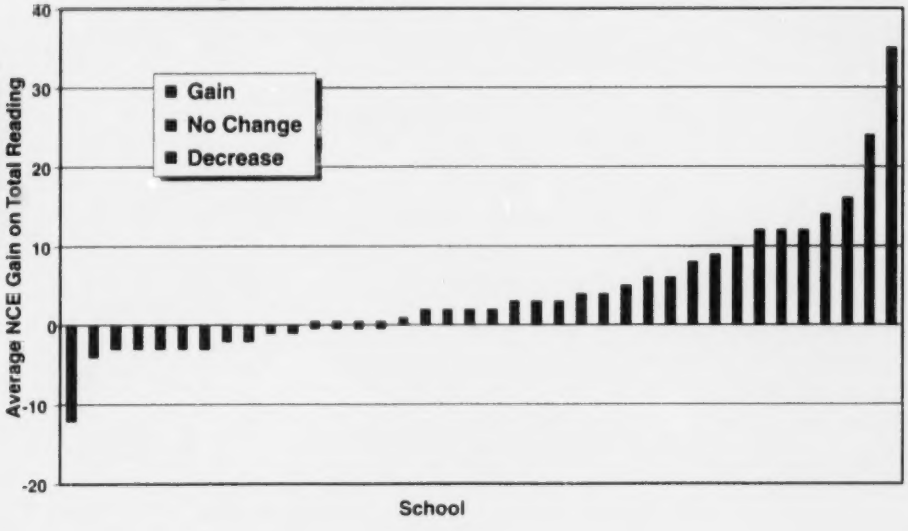
The average NCE results for all second grade cohorts for the 38 schools on Total Reading are displayed in Table 3, demonstrating increasing means from 37.28 to 43.43 NCEs. A second analysis examining average NCE scores for each of the 38 schools reveals a similar pattern of increasing results for the cohorts across years for 23 of the 38 schools. The average NCE gains in these schools ranged from 1.32 to 34.90 (see Figure 5). Results from four of the schools showed no change over time while 11 schools revealed a pattern of declining scores. This analysis revealed that 61% of the schools showed a moderate to dramatic upward trend; 11% of the schools stayed the same and 29% of the schools had a minimal declining trend with one school showing a loss of 12 NCEs.

Figure 5 - Average NCE Gain on the Gates-MacGinitie Total Reading Test for Second Grade Cohorts by School from Fall of Literacy Coordinator's Training Year to Fall 1999



Analysis #3: Results of Implementation Survey

As indicated in the previous section, 23 schools showed a medium to strong upward trend. Scores for these schools in fall 1999, were higher than baseline scores taken at the initiation of the program. Dramatic improvement (an increase of 5 or more NCEs) was noted in 11 schools. One of the essential characteristics of the Literacy Collaborative is the ongoing collection and examination of data that continuously inform implementation and teacher education.

Schools are complex social and political environments, within which there are many interacting variables. Personnel are constantly changing within schools and across the wider districts within which they operate. There are constant budget fluctuations and changes in priorities. Since school reform takes place over a period of several years, this variability makes it difficult to assess just what is working and how. It is likely that the combination of a broad range of factors is the key to success—not just one element of comprehensive school reform. We can learn from studying schools where successful trends are noted as well as schools that are struggling.

Accordingly, we investigated some details of implementation at all schools included in the evaluation. Literacy coordinators were asked to complete, in collaboration with the school principal and staff, a questionnaire that probed the factors such as staff turnover, student mobility, home/school connections, teacher support for the new approaches, the role of the literacy team and the principal, time available for teaching and learning, time available for coaching and number of teachers being coached, and level of implementation in kindergarten and first grade classrooms. Much helpful information was received from the 29 questionnaires (76% return rate) that were returned by the schools involved. We interpret these data with caution since they are self-reported by school personnel; however, they provide some useful insights to guide further program development and school level implementation of the Literacy Collaborative.

Responses were received from 18 schools with increasing trends (an average gain of 9.1 NCEs on Total Reading on the Gates-MacGinitie Reading Test) and 11 schools that either remained the same or experienced decreases in average NCE results (-2.9 average decrease in NCE results). It is important to note that the students tested each year represent different cohorts; that is, they are different groups of children, which make comparisons tentative. In this long-term school reform project, we are looking for trends over a five-year

period and across the wide range of schools involved in the Literacy Collaborative but we recognize that population variation can be the source of change in scores. We will talk about these schools as Category 1 (High Progress Schools) and Category 2 (Lower Progress Schools).

Variability in staff and students.

In any given school, there is likely to be turnover of staff as well as student mobility. Teachers involved in training in one year may move on to other positions in the next year, which can inhibit the achievement of long-term goals; just as staff gain expertise, they are gone and inexperienced people take their places. In our view, professional development is not "wasted" because staff members who increase their expertise may be serving students in other schools or districts; however, staff turnover does have an impact on achievement. We asked school personnel to provide information as to whether staff turnover was high, moderate, or low. For the Category 1 schools which responded (n=18), 33% reported high staff turnover, 33% moderate turnover, and 33% low turnover. For Category 2 schools (n=11), 45% reported high turnover, 18% moderate turnover, and 36% low turnover. Category 1 schools had a slightly more stable teaching staff than did Category 2 schools; yet, we note that many high progress schools did have unstable staff populations.

Relative to student mobility, 28% of Category 1 schools reported high mobility (defined as above 30%); 28% reported moderate mobility (defined as 11% to 29%); and 44% reported low mobility (less than 10%). For Category 2 schools, 54% reported high mobility; 27% moderate mobility; and 18% low mobility. Category 2 schools appeared to have higher student mobility than Category 1 schools; but, again, we note that six of the high progress schools did have very high student mobility.

Home/school connections

Both Category 1 and Category 2 school personnel reported moderately strong home/school programs, although only one school reported excellent communication between home and school and less than half reported good communication. We identified the area of home/school connections as needing more development. We were surprised to note that 89% of the Category 1 schools used KEEP BOOKS to increase home reading, while only 36% of the Category 2 schools used KEEP BOOKS.

Materials

Schools in both categories reported adequate supplies of materials. Respondents were asked to describe the supply of books and the management of the book room, rating it on a scale where 1 = not established to 4 = established and well stocked with books. Category 1 ratings averaged 3.2 and Category 2 ratings averaged 3.3. It seems that provision of materials is a necessary but not sufficient factor in boosting literacy achievement.

Time for teaching and learning literacy

We also asked respondents to provide information on the time set aside for daily literacy teaching and learning, rating the school using the following scale: 1 = less than an hour of uninterrupted time each day, 2 = 1 to 1 ˚ hours of time; 3 = between 1 ˚ and 2 hours; and 4 = between 2 and 2 ˚ hours. For schools responding, the average for Category 1 schools was 3.2, with 50% of them having between 2 and 2 ˚ hours of uninterrupted time for literacy instruction. The average for Category 2 schools was 2.91, with only 2 schools having a daily time block of between 2 and 2 ˚ hours for literacy instruction. These data imply that a block of uninterrupted time may well be a factor in rising achievement.

Data implies that a block of uninterrupted time may well be a factor in rising achievement.

Leadership from Staff and Principal

Literacy coordinators rated the principal's support where 1 = actively unsupportive; 2 = mildly supportive; 3 = moderately supportive; and 4 = actively supportive. Responding schools in Category 2, in fact, rated the principal's support at an average 3.4 while schools in Category 1 rated principal support slightly lower (average 3.0). For the leadership team however, the results were different. School personnel rated the literacy team using the following scale: 1 = not established; 2 = established, less than 3 meetings; 3 = met 3 or more times with impact on implementation; and 4 = met 5 or more times with strong impact on implementation. School personnel in Category 1 rated team performance during the 1999-2000 school year as an average 2.9, while personnel in

Category 2 schools rated an average 2.4. Of Category 1 schools, 39% rated the team performance as 4; in Category 2 schools, only 27% rated team performance as 4. Two Category 2 schools, reported a strong principal but a weak team; no Category 1 schools reported a similar combination. It may be that principal support is necessary but not sufficient to produce achievement gains. The involvement of a strong team can create much higher support for new approaches and their success.

Staff involvement and support

Respondents were also asked to categorize support for the project on the part of primary and intermediate teachers. Here, we observed what appears to be an important difference between Category 1 and 2 schools. First, we will discuss the results on primary level teachers. Results of the survey indicate that 83% of respondents in Category 1 schools said that approximately 3/4 of the primary staff actively support the project. The additional 17% of the school respondents said that approximately 1/2 of the staff actively support the project. Only 36% of respondents in Category 2 schools stated that 3/4 of the staff actively support the program; 55% said that approximately 1/2 of the staff actively support the program; and 9% reported that only 1/4 of the staff actively support the program. The primary teachers provide the instruction that directly affects scores in second grade. These differences indicate much higher participation and enthusiasm on the part of staff in the high progress schools.

The results for intermediate teachers were different. Here, 60% of the Category 1 schools reported that at least half of the intermediate teachers support the program; 20% indicated that less than 1/4 of the intermediate staff support the program. Every Category 2 school reported that at least half of their intermediate teachers were supportive; 63% responded that 3/4 of the staff support the program, and 37% indicated that 1/2 of the intermediate teachers support the program.

Table 4 - Number and Percentage of Kindergarten and First Grade Teachers Rated* at Each Level of Implementation as of September 1999

	Category 1 Schools			Category 2 Schools		
	K (N=52)	1st (N=63)	Total=115	K (N=32)	1st (N=43)	Total=75
Teachers rated as #1						
The teacher either has not completed the training course or has completed it but is not implementing the framework in the classroom.	5 (10%)	7 (11%)	12 (11%)	3 (10%)	7 (11%)	10 (13%)
Teachers rated as #2						
The teacher has completed the training course and is beginning to implement the framework at a basic level; has some trouble with management of the framework; needs to work on management, teaching decisions, and efficiency.	11 (21%)	11 (17%)	22 (19%)	9 (28%)	17 (40%)	26 (35%)
Teachers rated as #3						
The teacher has completed the training course and has materials ready for use; has a regular period for writer's workshop; is using the buddy study [word study/spelling] system; has guided reading groups and includes all elements in the lesson; is working for more powerful decision making and for efficiency.	16 (31%)	24 (38%)	40 (35%)	11 (34%)	11 (26%)	22 (29%)
Teachers rated as #4						
The teacher has completed the training course; has all materials present, organized and accessible; is implementing all elements of the framework in a high quality way. Decisions are well-timed and powerful and allow children to use what they know. Lessons are well-paced and effectively presented.	20 (38%)	21 (33%)	41 (36%)	9 (28%)	8 (19%)	17 (23%)

**Note: Implementation self-report data for 29 of 38 schools in report.*

These results may reflect distance between primary and intermediate staff members or simply lack of awareness on the part of intermediate teachers.

Coaching

We asked respondents to indicate how many teachers each literacy coordinator was actively coaching during the past year, as well as the amount of time set aside for in-class coaching. Interestingly, we found that literacy coordinators in Category 1 schools were coaching an average of 3.6 teachers each week providing 2.1 hours of weekly support for each teacher. Literacy coordinators in Category 2 schools had almost twice the load of the Category 1 literacy coordinators by coaching an average of 7.2 teachers for 1.6 hours each week. Literacy coordinators in Category 2 schools may be less effective because they are moving quickly from teacher to teacher to cover more individuals.

Implementation in classrooms

The real test of an innovation is whether real and lasting change takes place in the classroom experience of children. We asked respondents to list teachers (anonymously) and to rate the level of implementation using the rubric displayed in Table 4, which shows results of the survey. Schools in Category 1 appeared to have a higher percentage of teachers rated as expert by literacy coordinators as 36% of the teachers in Category 1 schools were rated as level 4 compared with 23% of the teachers in Category 2 schools. Category 1 schools also had a higher percentage of first grade teachers (33%) rated as expert than Category 2 schools (19%). In addition, schools in Category 1 had a higher percentage of first grade teachers (38%) rated as level 3 than Category 2 schools (26%). A rating of 3 indicates a satisfactory level of implementation. Twenty-one percent of the kindergarten teachers in Category 1 schools and 17% of first grade teachers were rated as level 2. However, a higher percentage of teachers in Category 2 schools were rated as level 2 (28% of kindergarten teachers and 40% of first grade teachers). Level 2 indicates that teachers were beginning to implement the framework but were having trouble with management, teaching decisions, and efficiency. These teachers would need a great deal more support from the staff development system. These results suggest that possibly more expert levels of implementation lead to greater achievement.

Analysis #4: NCE Scores for Children Attending the Same School from Kindergarten to Grade Two

A critical concern in many schools is that of student mobility. Students new to the schools receive only partial exposure to new instructional methods. To determine whether consistency in instruction and attendance would make a difference in student achievement, students who were in the same school from kindergarten through second grade were compared with cohorts of students

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Table 5 - Average NCE Performance on the Gates-MacGinitie Reading Subtests for Second Grade Groups Fall 1999

Fall 99 Gates-MacGinitie Reading Test	Grade 2 Students	Attendance*	Mean	StdDev	n
Reading Comprehension	Not in Same School K-2	Met attendance criteria	44.38	22.01	408
		Did not meet attendance criteria	31.70	24.69	43
	In the Same School for K-2	Met attendance criteria	48.86	21.81	1226
		Did not meet attendance criteria	35.48	21.25	62
Total Reading	Not in Same School K-2	Met attendance criteria	43.40	22.28	408
		Did not meet attendance criteria	30.21	24.92	43
	In the Same School for K-2	Met attendance criteria	47.34	21.99	1226
		Did not meet attendance criteria	33.84	18.47	62

**Note: Attendance criteria = absent less than 20 days in 1998-99 school year.*

who did not attend the same school from kindergarten through second grade.

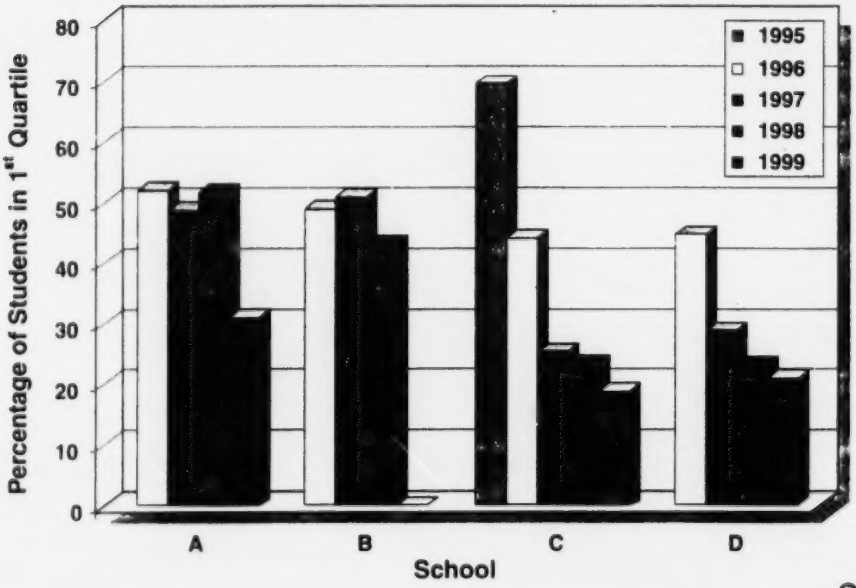
For comparisons using mobility and attendance as group characteristics, results for all students are shown in Table 5. Results for these groups of students suggest that consistency of instruction did make a difference and attendance is a critical factor as well. When we compared the average performance of students who were at the same school from kindergarten through second grade with the performance of students who were not in the school during that entire period of time, the average NCE performance was much higher for students who experienced the school's program during this time. This pattern was consistent across both groups of students who attended the same school from kindergarten to second grade – those who met the attendance criteria (absent less than 20 days during 1998-99) and those who did not meet the attendance criteria when compared with students with similar attendance records who did not attend the school from kindergarten to second grade. Students in the same school who met the attendance criteria had the highest scores. The average NCE performance for this group on both Reading Comprehension and Total Reading (48.86 NCEs Reading Comprehension; 47.34 NCEs Total Reading) approaches 50.0 NCEs, which is where students are expected to be for their grade level. Students who were not in the same school from kindergarten through second grade and who did not meet the attendance criteria scored an average NCE of 31.70 for Reading Comprehension and 30.21 for Total Reading.

Although students who were at the same school had results that were considerably higher on the fall 1999 administration of the Gates-MacGinitie Reading Test than the second grade students who were not at the same school from kindergarten through second grade, these results must be interpreted with caution because students who move less may tend to score higher in general. These results do support the idea, however, that students benefit from strong attendance and consistent instruction in the same school during their primary years. This pattern of achievement is even stronger than the NCE results documented in our earlier analysis of 12 schools (Williams, 1999).

Analysis #5: Patterns of Shifts in Achievement Distribution by Quartile

Average scores represent one way to look at a school's success record. However, a goal of the Literacy Collaborative is to move students from the lower quartiles into average and above average quartiles of achievement. To identify patterns of achievement in terms of quartiles, we analyzed the distribution of student scores across quartiles from lowest (#1) to highest (#4). Quartile results are based on student scores on the Gates-MacGinitie Reading Comprehension Test. For each school, we looked at the percentage of children in each quartile over the years of participation in the project to see if the percentage of students in the lowest quartile decreased and the percentage of children in at least two of the higher quartiles increased. This analysis revealed that a shift from the lowest quartile to the higher quartiles occurred in 24 of the 38 schools. We illustrate this pattern of fewer students in the first quartile and increasing numbers of students in the higher quartiles using data from four schools in Figures 6 and 7.

Figure 6 - Percentage of Students Scoring in the Lowest Quartile on Gates-MacGinitie Reading Comprehension Subtest Over Time for Four Schools



In School A, for example, 51.2% of the second grade students scored in the lowest quartile in the fall of 1996. By fall testing in 1999, only 30.1% of the students scored in the lowest quartile. The shift was even more dramatic in the other three schools. In School B, 48.1% of the students scored in the lowest quartile in 1996 but there were no children who scored in that quartile in 1999. The distribution of student scores for all four schools is illustrated in Figures 8 - 11. The 24 schools demonstrating this achievement pattern not only raised average NCE results over time, but did so with fewer students in the lowest quartile and larger numbers of students in the higher quartiles.

Figure 7 - Shifts in Percentage of Students Scoring in the Higher Quartiles on Gates-MacGinitie Reading Comprehension Subtest Over Time for Four Schools

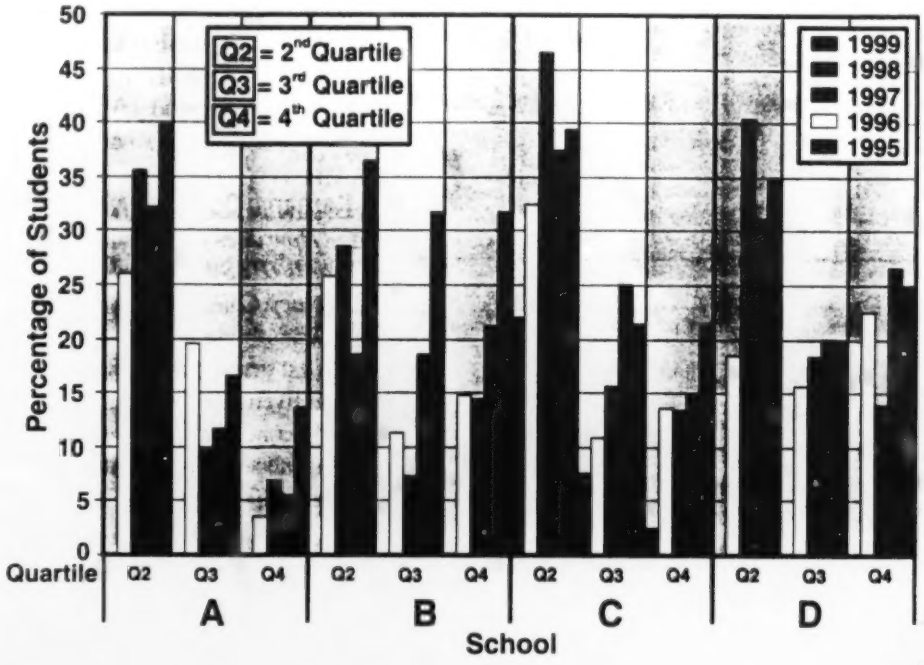


Figure 8 - School A

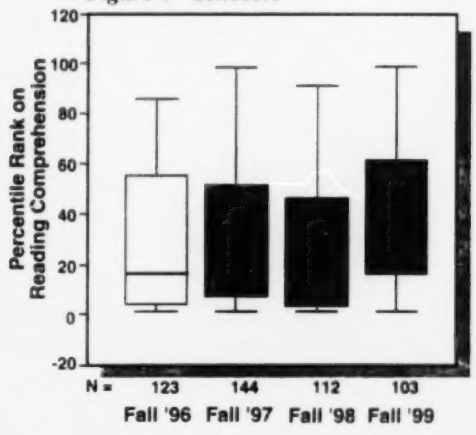


Figure 9 - School B

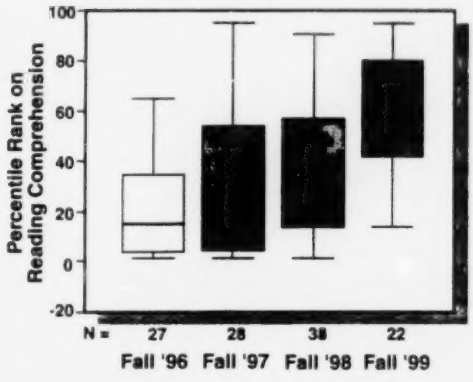


Figure 10 - School C

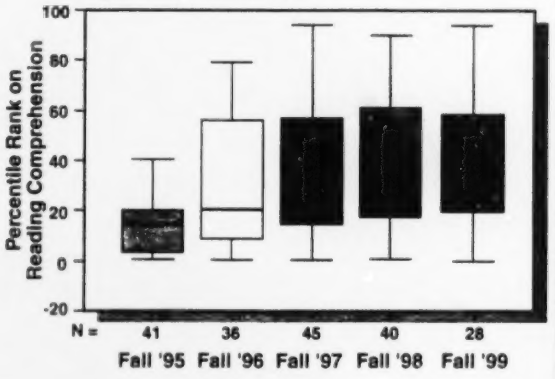
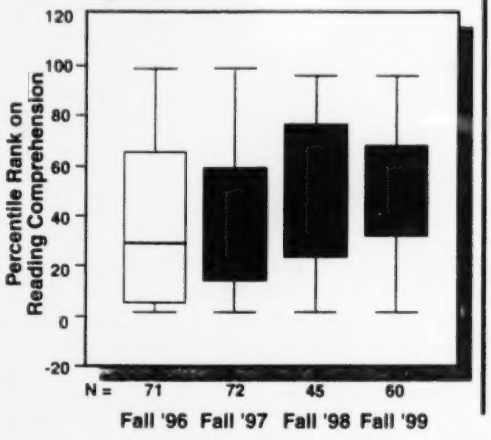


Figure 11 - School D



Figures 8-11 show quartile distribution on the Gates-MacGinitie Reading Comprehension Subtest over time by school.

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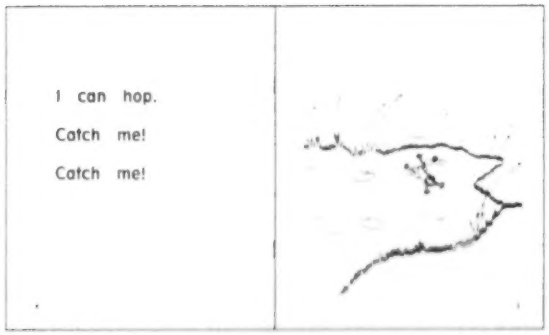


*Book 1 (*Catch Me!*) is the simple story of three animals, a bird, a frog, and a fish, each of whom say, "Catch me! Catch me!" The text layout features a large clear font with exaggerated spaces between words. The font has plain (rather than typeset) letters* a *and* g. *There are three lines of text on each page, with clear space between lines. The left page is print with a supportive illustration on the right. Periods and exclamation points are used for punctuation. The text is repetitive until the last page, when the fish is caught and the word "Yes!" is added. The text has 26 words, including high frequency words* me, I, can, *and* yes. *Successful reading of* Catch Me! *indicates that the child has learned the function and some of the conventions of print; can move through a simple book using illustrations and print in a coordinated way; can recognize some high frequency words; and can use language cues to read a repetitive text. This easy text is categorized as level B, which is the recommended benchmark for the end of kindergarten.*

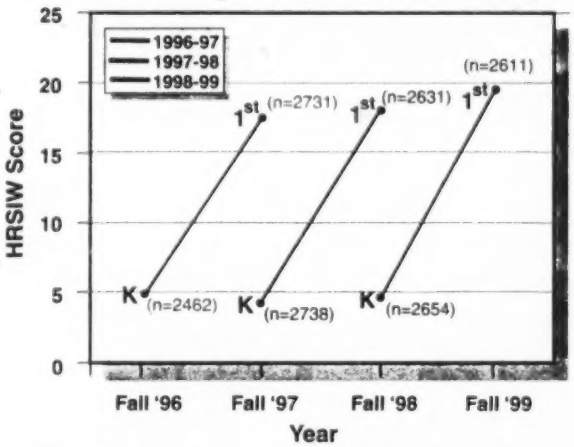
One way to increase the mean score is by raising scores of children in the top quartile; but this is not what occurred here. The average performance increased from one cohort to the next across time and the number and percentage of children in the lowest quartile decreased. Work continues in the other 14 schools to reduce the number of students in the lowest quartile with a corresponding gain of number of students into the other quartiles.

Research Question #2:

How does performance on Hearing and Recording Sounds in Words (HRSW) in kindergarten and grade one change over time in Literacy Collaborative schools?

Examining the growth in scores from fall of kindergarten to fall of first grade for one class of students is a way of documenting the effectiveness of the kindergarten program in teaching important early concepts such as phonological awareness. Students' ability to hear the sequential sounds in words and to represent them with letters and letter clusters is a critical component of beginning literacy. We compared the entry scores for over 2,400 kindergarten children beginning school in 1996, 1997, and 1998, with their achievement on the same test as first graders the following year. As shown in Figure 12, kindergarten entry scores had an overall downward trend moving from 5.06 to 4.48 to 4.82. During that same time period, however, HRSW scores for each class rose from 17.48 to 18.15 to 19.56. Thus, despite generally lower scores at the beginning of kindergarten, scores at the beginning of first grade rose in response to implementation of the Literacy Collaborative framework in kindergarten classrooms. It appears that the children's performance on HRSW is improving as teachers receive more training since the first year's results and part of the second year's results are baseline results for a number of these schools, depending upon when the LC was trained.

Figure 12 - Average HRSW Scores for Kindergarten and First Grade Students for Fall 1996-97, 1997-98, 1998-99



Research Question #3:

How does performance on Benchmark Books in kindergarten and grade one change over time in Literacy Collaborative schools?

We completed a similar analysis of Benchmark Books results by analyzing the patterns of the percentage of students who could read

Figure 13 - Percent of Kindergarten and First Grade Students Able to Read Benchmark Books Fall 1996-97, 1997-98, 1998-99

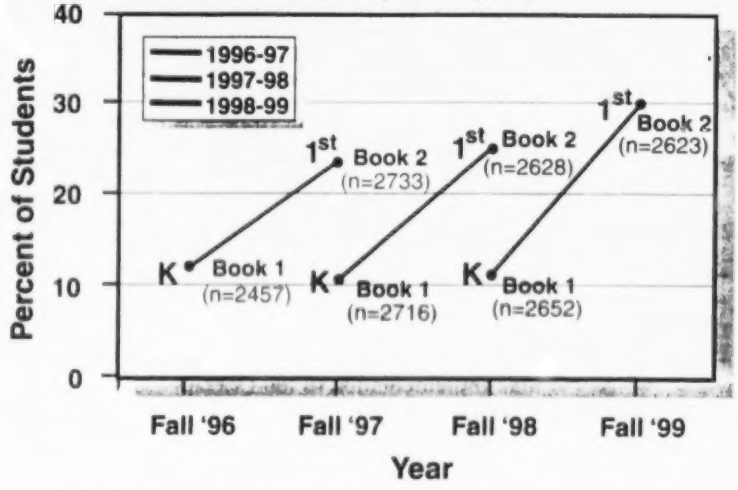
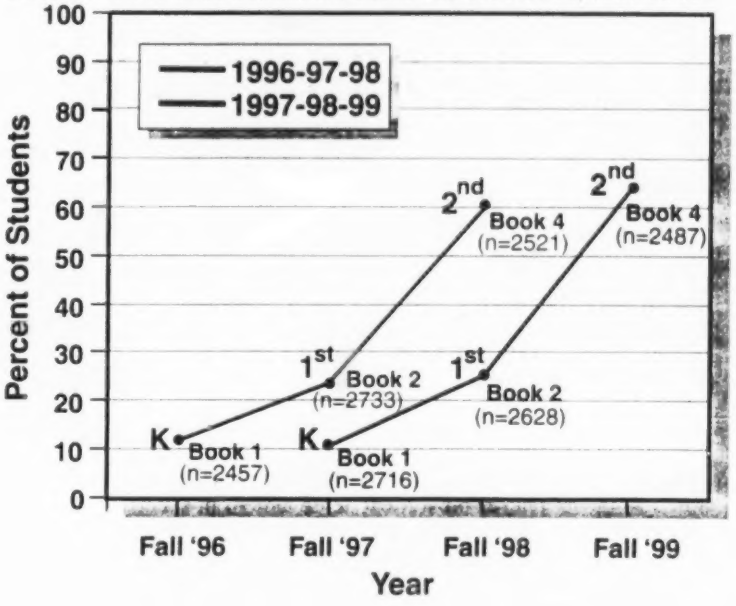


Figure 14 - Percent of Kindergarten, First Grade, and Second Grade Students Able to Read Benchmark Books Fall 1996-97-98, 1997-98-99

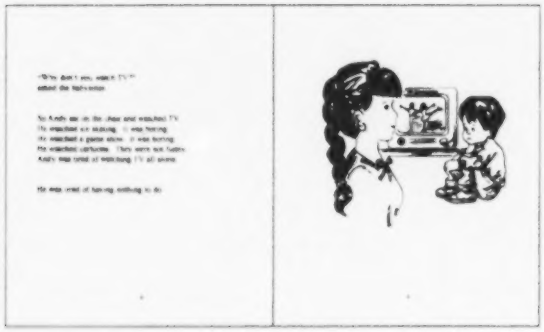


Book 1 with 90% or greater accuracy in the fall of their kindergarten year and those who could successfully read Book 2 the next year as first graders.

Figure 13 reveals achievement shifts quite similar to the HRSW results in Research Question #2 in that the percentage of children successfully reading Book 2 as first graders rose consistently over time from 23.6% to 25.1% to 29.9% even though entry level percentages of children successfully reading Book 1 as kindergartners declined.

Figure 14 illustrates a similar pattern of achievement for two cohorts of students from kindergarten to second grade. The analysis included the students reading Book 1 in the fall of their kindergarten year, Book 2 as first graders and Book 4 in the fall of second grade.

*Book 2 (*The Argument*) features a conversation between a girl and a boy arguing over whose pet is better. It has 105 words, with several sentences on each page. The sentences are longer (3-10 words) and much more complex that* Catch Me! *A wider range punctuation, including periods, commas, quotation marks, and exclamation marks are used. The font is smaller than Book 1, although it still uses the plain letters* a *and* g. *There are clear spaces between words and between lines and an illustration on every other page. However,* The Argument *cannot be read by looking at the pictures. The text is not repetitive, although the back and forth dialogue makes it easy to predict (or check on the analysis of) words like* better *and* too. *The text contains a large number of high frequency words, including* the, said, is, has, a, my, can, cat, up, too, girl, *and* boy. *There are also words like* better, climb, bark, long, *and* tail, *that offer challenge in terms of word solving. Successful reading of* The Argument *provides evidence that the child can process several lines of print using visual analysis of words as well as language information; follow a story line with back and forth dialogue; recognize and read a range of high frequency words quickly; and use punctuation to prompt phrasing and reproduction of the author's syntax. Books at this level (E) would be about right for first graders at mid-year.*



Benchmark Book 4: Nothing to Do

Nothing to Do *is the story of a little boy who lives in an apartment house and in spite of several suggestions from the babysitter has "nothing to do." At the end of the story, he goes outside and finds some friends to play baseball. Most pages have many lines of print (8 – 13 lines), which is in a smaller font than the previous two books and includes the typeset* a *and* g. *The text has 238 words, including contractions, many high frequency words, and a large number of multisyllable words such as* apartment, basketball, babysitter, Saturday, hospital, *and* vacation. *Other words, such as* outside, someone, something, nothing, office, *and* buildings, *provide more challenge in word solving. In addition, many words in the text have inflectional endings such as* –ed, -s, *and* -ing. *There is an illustration on every other page that enhances the meaning of the text but does not provide specific cues to read the print. Successful reading of* Nothing to Do *provides evidence that the child can process numerous lines of print using multiple sources of information, including letter-sound analysis and visual analysis of words, language, and meaning built as the story unfolds; sustain reading over a longer story, remembering details (such as the fact that Andy liked baseball and his friends were out of town); solve multisyllable words and recognize many words rapidly, with accuracy; read complex sentences; begin new sentences in the middle of the line; and use a full range of punctuation to guide phrasing.*

Benchmark Book 4 (*Nothing to Do*) is equivalent to Level I on the text gradient and is acceptable as a standard for the beginning of Grade 2.

As kindergartners in the fall of 1996, 12% of the students (n=2457) successfully read Book 1, 24% of the students read Book 2 as first graders (n=2733), and 61% of the students (n=2521) successfully read Book 4 in the fall of second grade. The next year, fewer students entering kindergarten (fall 1997) successfully read Book 1 (10.6%, n=2716). Yet, the number of students who could successfully read Book 4 as second graders rose to 64% (n=2487). These results may indicate that implementation of the Literacy Collaborative framework accelerated achievement such that students entering kindergarten in 1997 surpassed the previous cohort despite lower entry scores. ■

Section IV: Looking Closely

This section of the research report is an opportunity to examine how implementation of the Literacy Collaborative framework affects teaching and learning in K-2 classrooms. First, the effects of the Literacy Collaborative are described through the voices of literacy coordinators, principals, and other administrators. These voices are followed by the results of three additional studies that provide a closer look at the impact of implementation of the Literacy Collaborative on student achievement in specific school settings. The ideas and perceptions of educators combine with achievement data to create additional insights into the effects of the Literacy Collaborative in school settings.

Whole School Effects

When asked to describe the effects of the Literacy Collaborative on Mather School in Boston, Massachusetts, the principal, Kim Marshall, replied:

The Literacy Collaborative took the Mather School's lower grades by storm. As principal, I had never seen a program so quickly win over virtually every teacher. My role as principal has pretty much been limited to getting the funds for each year of implementation and getting out of

the way. In the year that Karen King, our Literacy Coordinator, was being trained, several colleagues were so eager to get started that they looked over Karen's shoulder and began implementing substantial parts of the program. The next year, Karen trained 12 teachers, and the third year, another 12. The program is now the instructional framework in all our classrooms from kindergarten through grade 3, and we are poised to begin the intermediate training next year.

The first and most important impact of the program has been on student learning. We are seeing achievement in reading and writing the likes of which we had never seen before, especially in kindergarten. Our first Literacy Collaborative cohort has not yet hit the important Massachusetts Comprehensive Assessment System (MCAS) tests in fourth grade, but we know from classroom assessments and anecdotal teacher accounts that our students are reading and writing at much higher levels than previous years.

The second impact has been on teacher collegiality and communication. Because there is now a common framework, a common language about instruction, and a common set of criteria for judging achievement, communication among teachers happens at a higher and more constructive level. Within grade-level teams and between grades, teachers are constantly comparing notes on students' progress and sharing effective strategies.

A third impact has been a much higher level of accountability. Now that we know where every student is, and now that we have a proven set of classroom experiences that can reach all students, failure is less and less an acceptable option. Without much administrative pressure, teachers are pushing themselves harder to get their students up to the demanding grade-level goals we have set for ourselves.

A fourth impact has been on our belief in our efficacy as a school. For years, we have had slogans like "All Children Can Learn," but as Uri Treisman said in a recent speech, high expectations don't mean a thing unless they are accompanied by a solid program to teach all students. With the Literacy Collaborative, we have acquired that set of tools to bring all students up to 21st century standards.

In short, nothing in my 30 years in public education has come close to the impact of this program on teaching and learning. It has given us the teaching tools, the assessments, and the professional sharing to truly reach all our students.

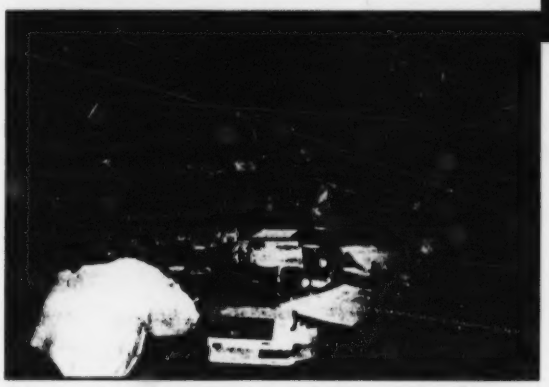
Staff Development Methods

Other school professionals commented on the methods used by the Literacy Collaborative to support staff development. According to Cherry Wright, Assistant Superintendent for Curriculum and Instruction in Temple Independent School District in Temple, Texas,

The Literacy Collaborative provides the vehicle for systemic professional development that positively impacts the learning of students. By requiring campuses to commit to the program, efforts are focused on the improvement of student achievement. Training and support provided by the Literacy Collaborative for coordinators in training helps to assure and maintain quality student instruction. If implemented as designed, the Literacy Collaborative makes a definite impact on the development of literacy skills in primary students.

If implemented as designed, the Literacy Collaborative makes a definite impact on the development of literacy skills in primary students.

Leadership Teams



Teams of teachers work together to study, share ideas, and plan instruction.

Many schools that exhibit quality implementation of the Literacy Collaborative have strong and active literacy teams that build and broaden ownership in the project. Susan Gottlieb, a literacy coordinator from Monticello, New York, has found that the strong support she receives from district administrators has had a huge impact on everyone in her building. She knows that district administrators value the professional development she provides for teachers in the building as an essential part of the change process. Teachers also appreciate the fact that administrators are willing to invest in

their professional development by instituting building-level, long-term support.

A closely-knit, committed literacy leadership team is another key factor in the successful implementation of the Literacy Collaborative at George L. Cooke Elementary School where Susan works as a literacy coordinator. Susan wrote, ***"Our team meets together to plan, problem-solve, and to look at data."*** One of the strengths of their team is its diversity—both in terms of their roles and perspectives on issues under discussion. Susan commented, ***"Together we have a variety of perspectives and points of view. The discussions, the arguing, and working through the issues help us build consensus and make decisions we all agree to live with."***

Visible Results

As teachers begin to see accelerated learning in their classrooms, a sense of excitement builds and teachers and students develop a sense of pride supported by their accomplishments. Carrie Hung, literacy coordinator from Milpitas, California reports that,

Children and teachers alike are excited about literacy learning in their classrooms. The students frequently ask if I'm going to be visiting their room soon or when I'll be there. They are eager to show and share their reading and writing work with me. The student displays of work in the hallways reflect the developing changes such as more depth and study on a topic or genre. Older students notice the work products of the younger students. Many times I have heard compliments from the intermediate students about the hallway bulletin boards that show primary students' literacy learning. The teachers are proud of their students' accomplishments and are very aware and tuned in to the progress each student is making. As I am walking down the primary wing of the building, teachers invite me to see the latest literacy project or to see and hear about the amazing development that took place during class. Teachers enjoy sharing the growth that is taking place.

Children and teachers alike are excited about literacy learning in their classrooms.

A kindergarten teacher from Carrie's school believes that the connections children are taught to make across reading and writing activities within the Literacy Collaborative framework support the rising scores seen in their district.

My kindergarten students constantly amaze and impress me. They bring a wealth of information to share with each other. The children learn to "work the room" for resources in reading and writing. Using their observant eyes, they find resources that adult eyes miss. Many times during interactive writing, the children will make wonderful connections to environmental print and prior knowledge. Then, in turn, they take that knowledge and use it in their own independent writing.

Julie Blankenship, a second grade teacher from Coronado Elementary in Amarillo, Texas, writes about the impact of Literacy Collaborative training on her students as writers:

The Literacy Collaborative training I've received allows me to individualize my writing instruction allowing for the most powerful teaching and learning. The minilesson and writing workshop are exactly what my second graders need providing brief, relevant lessons and immediate practice. I am very aware of each child's writing abilities, both creative and mechanical. Consequently, my teaching is more effective, as is my communication with students, parents, and administrators. My favorite part of the day is our sharing time when my students compliment and critique each other's work. The analysis they are able to do by the end of the year is nothing short of amazing!

The Literacy Collaborative training has made me a more focused, purposeful instructor. My lessons originate with the children and I've found that I'm finally teaching the child, not the lesson.

Similarly, Joanne Richey from Des Moines, Iowa, a Reading Recovery teacher who also completed the school-based course taught by her literacy coordinator, argues that, ***the training we received during the Literacy Collaborative course allows for better transfer of what the child learns during the Reading Recovery lesson into the classroom. The child is not getting mixed messages. Reading Recovery teachers and classroom teachers are speaking a common language and the focus has shifted to what the student's strengths are. It is a much more positive climate for teacher and learners alike.***

Ongoing Professional Development

From the principal's perspective, Tammie S. Smith of Northside Primary School in Tifton,

Georgia describes her own path as a learner as well as the teachers in her building:

When I first heard about our district's plan to implement Literacy Collaborative in all primary schools, I wanted to learn all I could about this new endeavor. Even though it was a challenge to juggle my administrative duties, I made it a point to participate in the weekly study group sessions so that I would understand the philosophy of the framework. The more I learned, the more excited I became. As the District Trainer and her host teacher set up our district's very first classroom at my school, I saw student achievement accelerate. In addition, feedback from parents and teachers was very positive.

From an administrative viewpoint, what has impressed me most about the program is the staff development component. The Literacy Collaborative really gives teachers the tools they need to make decisions about student learning. Teachers who are involved in the yearlong, site-based course learn to evaluate student progress in a very specific manner. I have found that my teachers are better able to diagnose and plan for instruction. Trained teachers no longer feel a need to rely on scripted lessons from a basal reader's manual when they have an opportunity to broaden their knowledge base and learn to be effective decision-makers for learners. As a result of our implementation of Literacy Collaborative's framework, we now have trained teachers who are better equipped to teach children to read and write!

Jane Short, a second grade teacher at Chandler Elementary School in Goshen, Indiana described the impact of class sessions led by her literacy coordinator, Janet Elliott, as powerful learning experiences helping her to extend her knowledge of children, teaching, and learning.

I've been working within the framework of the Literacy Collaborative for three years in my second grade classroom. The framework fits well with my understanding of how children learn to read and write. Writer's workshop, author studies, shared reading, student choice, and literature circles had always been part of my reading and writing program.

It was the guided reading, assessment and direction of instruction through running records, and interactive writing components that were missing. My earlier methods worked well when I was working with fourth graders. But, when I began teaching second grade, I felt suddenly at a loss. I asked myself the question: "How do I teach children to read?"

Thankfully, the Literacy Collaborative was implemented into our building and the teachers were given classes, coached, and had an extensive library of leveled books at their disposal. Each year we continue our learning through ongoing dialogue with our colleagues by asking new questions and having book studies.

Understanding that children need many reading and writing experiences balanced with consistent teaching of strategies and using an instructional plan based on what children know makes it imperative that primary grades within a school be committed to teaching reading and writing within the Literacy Collaborative framework. I believe this is our greatest challenge.

The staff development provided by the Literacy Collaborative challenges beliefs held by teachers for many years and provides an opportunity to learn new ideas about observing children and planning instruction to meet the needs of individuals. Pat Kolakowski, from The Learning Center in Fall River, Massachusetts, describes the path an experienced teacher followed during her training year:

Connie transferred to The Learning Center the year that our staff started their initial Literacy Collaborative course. She had never heard of the Literacy Collaborative but she was willing to listen and learn. She had been teaching for over 25 years, and her reputation as a wonderful kindergarten teacher was shared by many. As we talked about the Literacy Collaborative framework, the philosophy of Vygotsky, and Clay's work, Connie became quite vocal about the way she had always taught kindergarten. To her, this did not sound developmentally appropriate for little ones. I asked her to remember that developmentally appropriate really was what the child was ready to learn, and to keep an open mind to the practices and philosophy of what the framework elements offered.

Connie listened hard, asked important questions, and began to trust as she started implementing the framework in her classroom. After three years, she still asks important questions as she opens the world of learning for her young children. As they develop as independent writers,

The Literacy Collaborative really gives teachers the tools they need to make decisions about student learning.

they discover so much about other genres as they write procedures and observations in science, respond to poetry and wonderful books, or create lists of ingredients for cooking some great cookies. As they develop as independent readers, she teaches children about book structures and language through powerful read alouds and shared reading. So often they sing, laugh, or sigh as she helps them make sense of written language. Connie is continually amazed as she guides the children through small group reading instruction.

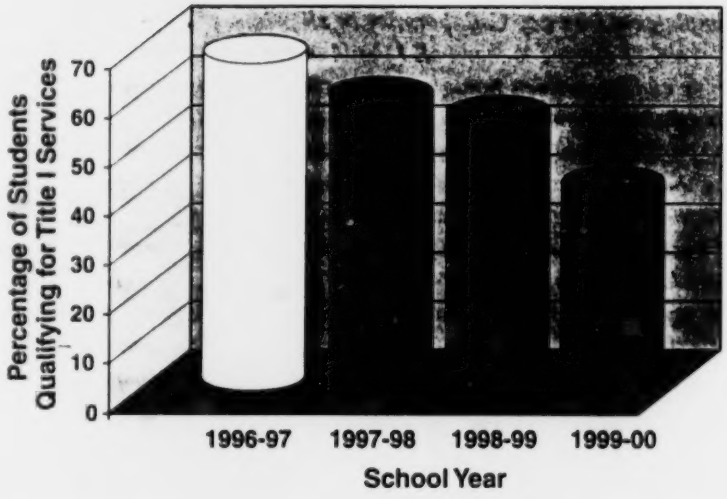
Connie now sends children off to other classes to celebrate the books they can read. As you walk down the halls of our tiny school, you'll probably be tugged by a few kindergarten children who want to read the poem they wrote that hangs on the wall. Connie watches carefully, teaches purposefully, and celebrates loudly what her kids can do now.

The comments in the previous section come from the first-hand, daily observation of teachers and administrators. In addition to careful daily monitoring of student progress, educators involved with Literacy Collaborative schools systematically collect data to evaluate their efforts. This systematic data gathering is important because it informs the instruction and implementation of the curriculum framework. Teachers cannot wait for the results of standardized tests to strengthen instruction in areas of need. Many educators conduct their own investigations in Literacy Collaborative schools. In the next section, we report several investigations at the school, district, and university levels.

Kindergarten Achievement at Ossipee Central School Center Ossipee, New Hampshire

At Ossipee Central School, children at the end of kindergarten are assessed using Clay's Observation Survey to determine who will receive additional services through their Title I program as first graders. When they first became a Literacy Collaborative School in 1996, 62% of the children qualified for Title I services at the end of kindergarten by scoring 96 points or less out of a possible 161 points. Since the kindergarten teachers have implemented the Literacy Collaborative framework, the number of children who qualify for Title I services as first graders has decreased each year. During spring testing 2000, only 36% of the kindergarten children qualified for Title I services (see Figure 15). The staff attributes this decrease in the number of students moving into first grade requiring Title I services to increased achievement during the kindergarten year as a result of implementation of the Literacy Collaborative framework.

Figure 15 - Percentage of First Grade Students Qualifying for Title I Services at Ossipee Central School by Year



Kindergarten and First Grade Achievement in Tift County Schools Tifton, Georgia

Donna G. Johnson, Tift County's District Trainer, and Anthony Onwuegbuzie, Valdosta State University researcher, designed a study to determine whether or not children who receive instruction based on Literacy Collaborative teaching principles during kindergarten and first grade experience greater gains in their abilities to read text than children who receive instruction from more traditional, presequenced materials. Thirty-five matched-pairs of kindergarten students were established based on six criteria: race, gender, retention, ability to write their name, entry score on the Hearing and Recording Sounds in

Words test, and entry score on the Benchmark Text Reading Assessment. The experimental group received literacy instruction according to Literacy Collaborative principles during their first two years of school and the control group received instruction from a more traditional approach.

After one year of instruction in kindergarten, 31 of the 35 children in Literacy Collaborative classrooms successfully read Book 1 at the beginning of first grade and attempted to read Book 2; 30 of the 35 children in the control group read Book 1 successfully and attempted to read Book 2. Data analyses revealed that 87.1% (N=27) of children in the Literacy Collaborative group entered first grade with the ability to read Book 2 while only 53.3% (N=16) of control group participants were successful. A Chi-Square analysis revealed that this difference was statistically significant ($p = .012$) with a moderate effect size (Cramer's V = 0.38).

A paired samples t test was used to examine differences between the groups' scores on the Iowa Test of Basic Skills (ITBS) administered at the end of first grade. Reading Advance and Reading Total scores were examined as one family. After the Bonferroni adjustment, reading achievement, as measured by ITBS Reading Advance scores, was statistically significantly higher for Literacy Collaborative students ($p = .005$) with a moderate effect size of 0.57. The ITBS Reading Total scores were also statistically significantly higher for Literacy Collaborative students ($p = .001$) with a moderate-to-large effect size of 0.70.

Another paired samples t test was used to examine the ITBS Language Advance and Language Total scores for matched-pair students. After maintaining a familywise error rate of 5%, Language Advance scores were statistically significantly higher for Literacy Collaborative students ($p = .001$) with a moderate-to-large effect size of 0.75, and Language Total was significant for Literacy Collaborative students at $p = .004$ with a moderate effect size of 0.57.

Since Literacy Collaborative students read at significantly higher levels than their matched-pair peers when they entered first grade, children in Literacy Collaborative classrooms were able to explore a greater variety of challenging texts earlier than their control group matches. Thus, these students were able to expand their reading abilities and increase their vocabularies as they read increasingly more difficult material. The positive effects of the continuation of Literacy Collaborative instruction in first grade were evidenced by the statistically significantly higher ITBS test scores Literacy Collaborative students attained in all areas of reading and language.

Writing Achievement in 19 Kindergarten and First Grade Classrooms

Kate Kirby from Georgia State University recognized the increasing use of writing assessments at district and state levels to document student achievement in writing over time and created a research project to study children's writing in Literacy Collaborative classrooms. She worked with the staff of Gwinnett County Public Schools in Lawrenceville, Georgia to use the state of Georgia's rubric and the school system's emergent writer's rubric to develop a continuum with anchor papers to help teachers examine the characteristics of their students' writing and discuss the implications of this process for their students and their teaching.

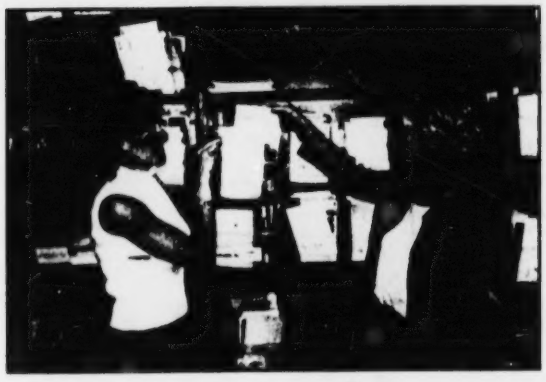
As they analyzed the kindergarten samples, teachers noticed that about half of the students' messages were in the form of pictures from which the child told a story orally when asked to share their ideas. Another third of the kindergarten samples included letters and letter-like features in their stories, sometimes copying random letters or using all or part of their name. By the end of their kindergarten year, however, over half of the writing samples were characterized by multiple sentences with clear topics expressed with unconventional spellings reflecting a growing understanding of letter-sound relationships.

At the beginning of first grade, the majority of the writing samples had several sentences loosely organized and a beginning sense of audience. During the spring collection of samples, however, most of the students' stories included multiple paragraphs with well-developed topics and a clear organization. Children were experimenting with language and sentence patterns, sometimes including interesting and novel word choices. Spellings and punctuation approached conventional; when errors occurred, they did not interfere with the intended meaning.

This study documents important shifts in student writing during kindergarten and first grade

Since Literacy Collaborative students read at significantly higher levels than their matched-pair peers when they entered first grade, children in Literacy Collaborative classrooms were able to explore a greater variety of challenging texts earlier.

in Literacy Collaborative schools as children progress from drawing pictures to communicate their story to crafting interesting, lengthy written texts with increasingly complex sentences and interesting word usage. As a consequence of these analyses, teachers developed a clearer understanding about how to support their students as writers through minilessons, writing conferences, interactive writing, and shared writing. In addition, teachers reported that the continuum was helpful when communicating with parents about their child's development as a writer.



The development of a school book room provides important resources for guided reading and other literacy instruction.

Summary

Both informal observations and systematic data collection support the broad base of learning that takes place when teachers have ongoing professional development and implement a comprehensive literacy framework in classrooms. Each provides important information as teachers, administrators, and literacy coordinators make daily decisions to support children as they are engaged in a wide range of reading and writing instructional activities. ■

Section V: Discussion and Recommendations

Research has been a critical component since the inception of the Literacy Collaborative. Data are gathered for every child in every school for every year they are in a Literacy Collaborative classroom. These data provide important information at two levels: to inform decisions made by literacy teams at individual sites and to document the effects of Literacy Collaborative implementation at both the school and national levels. The growth of the Literacy Collaborative as a staff development project in over 500 schools translates into data collection on approximately 125,000 students in fall 2000, which will be reflected in future research reports. Data reported here document the effects of the Literacy Collaborative for over 2,500 students in the 38 schools that have been in the program at least four years. The ever-growing Literacy Collaborative database will soon describe student progress for kindergartners through sixth graders in a large number of schools across the nation.

Insights from Multiple Measures

Data collection using multiple assessments documents achievement trends within each measure but also allows for analysis across measures, providing additional insights. For example, analysis by cohorts on the Hearing and Recording Sounds in Words data and the Benchmark Books data revealed not only an upward trend for multiple cohorts over two or three years across each measure, but also indicated a downward trend in entry scores at the kindergarten level, an important finding relative to overall achievement. If cohorts of kindergarten students entering Literacy Collaborative schools are generally scoring lower each year during initial testing, there are two important implications for interpreting the data reported here. First, the overall pattern of rising scores for second graders when aggregated is even more significant when placed against the data documenting downward trends in entry scores at the beginning of kindergarten. The rising patterns of achievement over time, then, is accomplished despite lower entry scores for subsequent cohorts of kindergarten students indicating accelerated progress making up for initially lower scores. Secondly, schools must examine the data from kindergarten cohorts and consider the implications of annual results for local preschool and Head Start settings. Intervention programs developed specifically for preschool-age children may be needed to halt the downward trend by providing rich learning experiences in preschool including daily read alouds, opportunities for children to create their own messages independently, shared reading experiences, and an exciting book collection for independent reading and take-home enjoyment.

Challenging Educational Settings

Schools in this report, like many of the over 500 sites currently involved in this project, are largely urban settings with mobile populations and a substantial number of students with Free or Reduced Price Lunch (FRPL) status. These are often challenging educational settings. We wondered if Category 1 schools would be less likely to have a large number of students with FPRL status. However, when we compared the high progress and lower progress schools, we found that an average of 65% of the students in Category 1 schools receive free or reduced price lunches compared with 57% of the students in Category 2 schools. Higher achievement, then, could not be attributed to lower FRPL status. Data reported here indicate that implementation of the Literacy Collaborative framework in a variety of educational settings can result in impressive achievement gains.

Attendance Factors

One of the challenges of this large-scale study is that data include children who have not attended Literacy Collaborative classrooms on a regular basis. Our research design calls for all second grade students to take a standardized reading test, not just those who have attended the school since kindergarten. Consequently, scores represent various levels of participation in Literacy Collaborative classrooms. Thus, the results must be interpreted with the understanding that some children have not experienced Literacy Collaborative classrooms for three years and have had a much more limited opportunity to learn within the framework.

Our analysis of NCE gains from the last two years has identified attendance as a critical factor in terms of attending the same school for three years in a row and also missing fewer than 20 days during the school year. The 1999 standardized test data strongly favors children who attended the same school for their primary years and were absent less than 20 days during the school year. These data support the position that achievement will rise with regular attendance in Literacy Collaborative classrooms from kindergarten through second grade. Efforts to increase attendance and decrease mobility appear to benefit students in these classrooms.

Factors Affecting Implementation

The implementation questionnaire we developed provides additional insight into factors relative to successful implementation. We can draw only tentative conclusions from our implementation survey data; but we hypothesize that a combination of factors, rather than one or two, makes the critical difference in raising the achievement level in a school. For example, one school in our study this year has a very high (95%) number of students receiving free or reduced price lunches as well as high student mobility. This same school has high coverage in Reading Recovery, uses KEEP BOOKS, and has a team performing at level 3 with active principal support. There is a two-hour block of time for literacy, a well-stocked book room, high implementation in kindergarten classrooms but only a moderate level of implementation in first grade classrooms (rating=2.6). The students at this school demonstrated a 16-point NCE gain on the standardized test from fall 1995 to fall 1999. Another school (with a 9 point NCE gain from fall 1996 to fall 1999) has low student mobility, only moderate coverage in Reading Recovery, uses KEEP BOOKS, has high teacher support, a high functioning team, and only a moderately supplied book room. The literacy coordinator has only minimal time for coaching, but the classroom implementation level is high in both kindergarten and first grade. These profiles illustrate the variability found across sites as each school represents a complex combination of individuals, and each has unique circumstances. The goal of the program is to continually work at improving the range of factors that contribute to success, with emphasis on classroom implementation, teacher engagement, and support.

Our analysis of the implementation questionnaire in tandem with the results from Category 1 and Category 2 schools reveals several factors related to successful implementation of the Literacy Collaborative framework. First, Category 1 schools tended to have a higher percentage of teachers rated as expert in implementing the Literacy Collaborative framework resulting from the ongoing efforts of the individual teacher and literacy coordinator. Schools with a stable teaching staff, an active literacy team, and the opportunity for the literacy coordinator to provide appro-

Schools with a stable teaching staff, an active literacy team, and the opportunity for the literacy coordinator to provide appropriate classroom support through coaching tended to have higher achievement.

priate classroom support through coaching tended to have higher achievement.

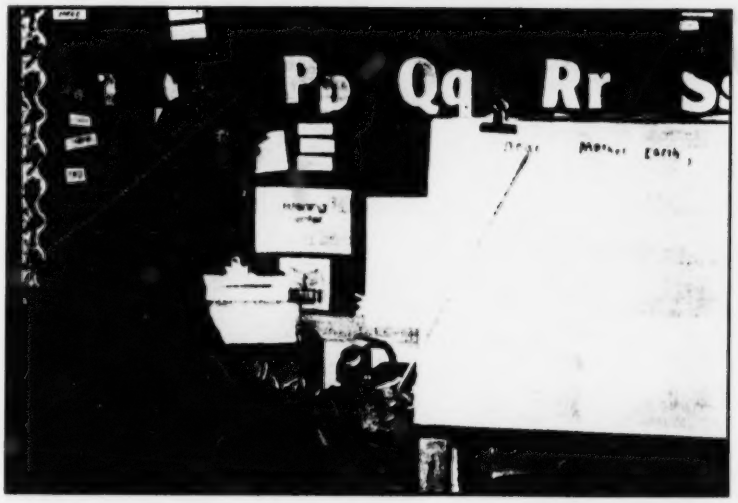
The level and quality of implementation may be related to the overall size of the building staff as the average population at Category 2 schools was much higher than Category 1 schools; thus, on the average, smaller schools tended to have higher gains. This, combined with data that Category 1 schools tended to have literacy coordinators working with fewer teachers for longer coaching sessions, indicates that there may be an optimal number of teachers a single literacy coordinator can effectively teach and coach to move all classrooms toward full implementation. Additional factors included a strong home/school connection involving a literacy project like KEEP BOOKS and a daily, uninterrupted literacy block providing for increased reading and writing instructional time.

Recommendations for Further Research

1. The role of the literacy coordinator within an individual elementary building is a unique one, which redefines staff development. In the past, inservice sessions were often provided at the district level several times each year and classroom observations were limited to the principal's annual review. The presence of a literacy coordinator in a Literacy Collaborative school signals a very different picture of staff development involving yearlong inservice courses provided at the building level and on-site observations and coaching in each teacher's classroom to support implementation of quality literacy instruction. Little research, however, has been conducted on the characteristics of literacy coordinators in schools with rising test scores. What makes a literacy coordinator effective? What is the contribution of the literacy coordinator's training during the initial year? What professional development opportunities are needed to further support literacy coordinators as they work each day in their schools? Case studies of literacy coordinators and individual school settings could provide valuable insight into these questions and support further program development.
2. More studies are needed to identify the factors related to a high level of implementation. Why are there buildings where teachers are not fully implementing the framework after four years of support by a literacy coordinator? What are the factors relative to teacher resistance? What are the effects of teacher mobility? What can a literacy coordinator do to support a building staff towards full implementation? What adjustments should be made in the training model to improve the level of implementation? What is the optimum number of teachers for a literacy coordinator to coach each week and the amount of time needed to support effective changes in literacy instruction?
3. Although it is encouraging to see a consistent pattern of rising test scores in 61% of Literacy Collaborative schools in this report, the schools with little or negative changes according to our data sources are important to note for further study. What are the factors relative to lower test scores in Category 2 schools?
4. Our data collection documents achievement through individually administered tests and standardized measures each year. Missing, however, are data on individual students throughout the year as reflected in classroom-based assessments or district-mandated testing. Studies at the building or district levels might take a closer look at achievement in Literacy Collaborative classrooms beyond the national data collection. What do school-based assessments reveal about student achievement in Literacy Collaborative schools?
5. Finally, the schools featured in Section IV report the effects of the Literacy Collaborative through the voices of educators and studies outside of the national design. These are important opportunities to document the change process and consider implications for teachers, principals, and students. Given the complexity of each Literacy Collaborative school setting, more research based on the unique contexts of individual schools and districts is needed to assess the effectiveness of the Literacy Collaborative within specific settings.

Analyzing the results of broad-based school reform efforts is a complex task. A school is a community within which many variables operate. Educators involved in the Literacy Collaborative are committed to long-term school development designed to improve literacy achievement. School staff members also make a commitment to look at

student outcomes over time. Evaluation consists of teachers' and literacy coordinators' daily and weekly monitoring of children's progress. In addition, formal, systematically applied measures are used. Data from those measures are represented in this report and serve to evaluate the project as well as to provide a base for further development of training and implementation processes. ■



On April 11, 2000, Avondale Elementary in Columbus, Ohio had a visit from Vice President Al Gore, who chose to visit Avondale to see how an inner city school had been successful at raising test scores. He found a Literacy Collaborative school where students and staff are excited about learning. The Vice President spent the whole day talking with students, staff, and parents and participated in an interactive writing lesson in 1st grade (shown in photo). The 1st graders showed him the work they had done in their centers and he listened to them read their published books. It was a great day for all!

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Training Sites

University

The Ohio State University
Georgia State University
Lesley University
University of Maine
Purdue University
Texas Tech University

Regional

Harris County Department of Education, Texas

District

Laguna Salada, California
Oak Grove, California
Orange County, Florida
Tifton County, Georgia
Des Moines, Iowa
Rockford, Illinois
University of Chicago, Illinois
Jackson, Mississippi
Haddon Township, New Jersey
Pitt County, North Carolina
Hilliard, Ohio
Newark, Ohio
South-Western City, Ohio
Warren, Ohio
Wausau, Wisconsin